# Topics for this talk

- The structure of NASA and SMD and implications
- Omnibus meaning and layered structure
- ROSES Solicitation as an example:
   Guidebook vs Summary of Solicitation vs.
   Overview vs. Program element
- NSPIRES Web Page:
   NOI vs. Step-1, team member confirmation, budgets, mailing lists, prior selections.
- SARA web page:
   Google Calendar, Selection Statistics,
   Volunteer for Review Panels
- Evaluation criteria
- Reviews before and after submission
- Max's Idiosyncratic advice

### **NASA's Mission**

Mission: Drive advances in science, technology, aeronautics, and space exploration to enhance knowledge, education, innovation, economic vitality and stewardship of Earth

Why am I wasting your time when you came for practical advice about writing proposals? Because this flows down to structure and thus funding opportunities!

(from <a href="https://www.nasa.gov/careers/our-mission-and-values">https://www.nasa.gov/careers/our-mission-and-values</a>)

# NASA's Mission = Underlying Structure

These four words in the Mission Statement (...science, technology, aeronautics, and space exploration...) correspond to the four "Mission Directorates": Aeronautics (ARMD), Science (SMD), Human Exploration (HEOMD), Space Technology (STMD), and the "to enhance knowledge, education, innovation" statement corresponds to the "Office" of STEM Engagement. I tell you this because these are the parts of NASA that give out money.

# Implications of Underlying Structure

NASA has an administrator and an advisory committee and each of the parts of NASA has their own Associate Administrator, congressional appropriation, goals and objectives, advisory committee(s) Assessment Groups that determines what goes into the solicitations. Things you want to propose that are (seem?) closely related may be solicited separately by two different directorates at NASA or different divisions within a directorate.

# Implications of Underlying Structure

Each part of NASA has its own goals and objectives and these tell you what that part of NASA is going to fund (and thus where to look for a solicitation to fund a particular project of interest to you. These goals and objectives are written down in documents:

The NASA 2018 Strategic Plan and for SMD the (currently 2014) Science Plan. Both of these may be found at:

https://science.nasa.gov/about-us/sciencestrategy

# Science (SMD)

- I'm from the Science Mission Directorate (SMD), which has four science "Divisions" (Astrophysics, Earth Science, Heliophysics, and Planetary Science).
- We have an "omnibus" solicitation called Research Opportunities in Space and Earth Sciences (ROSES).
- Omnibus meaning that each one has multiple different topics, each with its own due date within the umbrella solicitation.
- Each of the Mission Directorates have their own...

### All NASA Omnibus Research Solicitations

Research Opportunities in Aeronautics (ROA)
Research Opportunities in Space and Earth
Sciences (ROSES)

Research Opportunities in Space Biology (ROSBio)

<u>Human Exploration Research Opportunities</u> (HERO)

<u>Space Technology Research, Development, Demonstration, and Infusion (REDDI)</u>

(some of these are undoubtedly out of date but you get the idea)

# Implications of Underlying Structure

It's not always obvious (from the outside) what technical topic corresponds to which "directorate", e.g.,

- 1) Space biology and physics in microgravity are science but are not solicited by 'Science' (SMD) at NASA, they are solicited by HEOMD.
- 2) Machine Learning Tools for Protecting Astronauts From Solar Energetic Particle Hazards sounds like Human Exploration, but it was solicited by Space Technology recently
- 3) As you know, OSTEM is cross cutting, so it funds STEM projects that also are (or could be) solicited by all of the "directorates".

# Implications of Underlying Structure

Just as it's not always obvious (from the outside) what technical topic corresponds to which "directorate" in NASA the same is true of the "divisions" within SMD, So, read the solicitation or program element of ROSES carefully. We'll return to this later.

#### **ROSES**

"ROSES" = Research Opportunities in Space and Earth Sciences has many topics, many due dates, and the default rules (about all the boring stuff like fonts, policies etc.) is (mostly) relegated to the "Summary of Solicitation" (SoS). See the ROSES-19 landing web page at: <a href="http://solicitation.nasaprs.com/ROSES2020">http://solicitation.nasaprs.com/ROSES2020</a>

Once you have read the SoS once you can focus on the science or technology in the call, which is typically just a few pages long.

#### ROSES: award and funding information

- Awards: We select ~1200 out of ~5000 proposals each year, equal to ~\$600M (over the lifetime of the award). Spreadsheets with data about selections posted at <a href="http://sara.nasa.gov">http://sara.nasa.gov</a>
- Funded Organizations: ~30% of awards are to NASA centers, ~60% to universities and non profits, and the remainder to non-NASA government labs, and for-profit corporations. (non-U.S. organizations are a special case).
- Award Size: Ranges from under \$100K per year for focused, limited efforts (e.g., data analysis) to more than \$1M per year for extensive activities (e.g., development of science experiment hardware).
- Peer Reviewed: Based on merit, relevance, and level of effort.
- Award Mechanism: Typically grants and cooperative agreements (where appropriate), inter- or intra-agency transfers and only rarely contracts. Many elements specify no contracts.
- Duration: Typically three years but can be up to five.

### ROSES – What's different from the others

Mostly solicitations from NASA have the same basic parts, instructions and evaluation process, as described in the Guidebook for proposers. But there are differences from one solicitation to another or one directorate to another.

The most distinctive thing about SMD research is that we don't show the costs of salary, fringe or overhead to the peer reviewers, so we ask you to omit those from your proposals.

#### Table 1 of ROSES

Table 1 of ROSES (in the "Summary of Solicitation) is a check list of the parts of the proposal, listing whether various components are excluded, optional, or mandatory, page limits etc., e.g.,

Re	References: Third component of proposal				
	Length No page limit				
	Excluded	No references to documents unavailable to reviewers. See <a href="https://science.nasa.gov/researchers/sara/faqs#19">https://science.nasa.gov/researchers/sara/faqs#19</a> .			
Da	ata Managemen	t Plan (DMP) fourth component of proposal			
	Length 2 pages				
	Required Unless otherwise stated, a DMP or explanation of why it is not needed must be provided in this section.				
	Content	See Section II(c) and the DMP FAQ for content and templates.			

Us this as your quick check that you have all the parts, don't have extra parts etc.

#### ROSES

Each Program Element (call for proposals) has its own topic(s), POC and due date e.g., TABLE 2. Program Elements (ordered by due date) TABLE 3: Program Elements (by Division/Topic) at http://solicitation.nasaprs.com/ROSES2020table2 and http://solicitation.nasaprs.com/ROSES2020table3, respectively. (follow links see tables). The four main letter designations for the individual program elements (e.g., A.5, B.3, C.9 etc.) correspond to our four divisions (A = Earth B= Heliophysics and so on).

### **Omnibus Solicitation Structure**

### An omnibus like ROSES is layered:

- 1) The Summary of Solicitation (SoS) that sets the basic default rules.
- 2) The overview for that Appendix, e.g., A.1
  The Earth Science Research Overview that may add extra detail or supercede the default ROSES rules in the SoS.
- 3) An individual call (program element) is mostly technical but may add extra detail or supersede the overview and or default rules in the SoS.

### **Omnibus Solicitation Structure**

When you have a question you should look first at the individual program element, like A.39 Ecological Forecasting. If you find your answer there then stop. Only if you don't see the answer do you then look in A.1 The Earth Science Research Overview. If you find your answer there you may stop. If you don't see the answer then look in the ROSES Summary of Solicitation. If you still don't see the answer then look to Agency guidance and or the government-wide rules (2 CFR 200) or send an email to sara@nasa.gov. We are talking about rules questions here, not technical questions. Technical questions go to the POC of A.39.

### Solicitation vs. Agency Guidance

That Agency guidance is the NASA NRA and CAN Proposers' Guidebook, generally just referred to as "The Guidebook". People often get upset when the guidebook differs from ROSES. Don't. Its OK. Just do what the solicitation says. For example, I mentioned earlier that the most distinctive thing about ROSES was that we don't show salary, fringe or overhead to the peer reviewers. The guidebook doesn't say anything about that, but ROSES does. If the guidebook and ROSES disagree, do what ROSES says.

# Table 2 of ROSES (sorted by due date)

Desig.	Name of Program Element	NOI/Step 1 Due Date	Proposal Due Date
A.30	Earth Science U.S. Participating Investigator	06/18/2020	07/16/2020
B.14	Early Career Investigator Program   Atmospheric Composition: Laboratory Research	05/13/2020 (Step-1)	08/12/2020 (Step-2)
A.19	Atmospheric Composition: Laboratory Research	rended NA	08/13/2020
A.39	Ecological Forecasting	07/17/2020	08/14/2020
B.8	Heliophysics Technology and Instrument  Development for Science	07/17/2020 <b>s are links</b> N/A	08/26/2020
B.9	Heliophysics Low Cost Access to Space	N/A	08/26/2020
A.18	Atmospheric Composition: Upper Atmospheric Composition Observations	N/A	09/17/2020
C.7	New Frontiers Data Analysis [3]	07/09/2020 (Step-1)	09/17/2020 (Step-2)

## Example Program Element NSPIRES Page

Ecological Forecasting: NNH20ZDA001N-ECOF

Release Feb 14, 2020

NOIs Due - this line only appears if there are NOIs and this program doesn't ask for them Close date (Proposals) Due Aug 14, 2020

<u>DUE DATES: Table 2 lists and links to all program elements in due date order as amended (.HTML)</u>

DUE DATES: Table 3 lists and links to all program elements in appendix order as amended (.HTML)

Summary of Solicitation ROSES-2020 (.PDF)

Full ROSES-2020 complete solicitation as clarified February 24, 2020 (.PDF)

A.1 Earth Science Research Overview (.PDF)

A.39 Ecological Forecasting (.PDF) ← this is the link to the call

#### **Notices**

• EXAMPLE NOTICE: Released on XXDATE. When something has changed a notice will appear down here at the bottom of the page. It will say something like this Amendment releases the final text for this program element which was previously TBD, A preproposal bidder's conference will be held on xx. Mandatory Notices of Intent are required by YYDATE, and 8-page proposals are due ZZDATE or whatever...

### PDF of the program element

#### A.39 EARTH SCIENCE APPLICATIONS: ECOLOGICAL FORECASTING

NOTICE: This program element has a number of requirements and /or restrictions that are not standard for ROSES, including: a required cost share (see subsection 3.3) with schedule, a mandatory use of templates for the Table of Work Effort and reporting Current and Pending Support (see subsection 4.2.9), and the page limit for the Science/Technical Section is limited to 11 pages (see subsection 4.2). See Section 6 for a checklist of requirements.

#### 1. Scope of Program

#### 1.1 Overview

Ecological Forecasting is an applications area in the NASA Earth Science Division's Applied Sciences Program. This program element seeks proposals for Applications Projects that develop and demonstrate applications of Earth observations for the conservation of nature. In particular, this program element focuses on two approaches to nature conservation: 1) measuring and monitoring protected area outcomes and 2) promoting sustainable rewilding for ecosystem restoration. Details are below on the types of proposals sought to address these two approaches.

The goal of Applications Projects in the Applied Sciences Program is to transition applications developed by the funded projects to public or private partner organizations (i.e., end users) for their sustained use in decision-making and the provision of services.

Please Note: This solicitation has numerous required components detailed in the text below that must be addressed for full consideration. Please ensure you have reviewed and addressed all requirements before submitting (checklist provided for your convenience in Section 6).

## PDF of the program element

#### 7. Summary of Key Information

Annual Total Amount of NASA Funding	\$3,000,000 per year
Anticipated Number of Awards	10 to 20
Maximum Duration of Awards	4 Years
Due date for proposals	See Tables 2 and 3 of this ROSES NRA
Planning date for start of investigation	November 30, 2020
Page limit for the central Science and Technical section of proposal	11 pp.; see subsection 4.2 of this Program Element

#### This page length is not standard

	1107 1 -
Point of contact concerning this program	Woody Turner
	Applied Sciences Program
	Earth Science Division
	Science Mission Directorate
	NASA Headquarters
	Washington, DC 20546-0001
	Telephone: (202) 358-1662
	Email: woody.turner@nasa.gov

### Order of Precedence

Just as the NASA Guidebook for proposers is a generic document that merely sets the default rules that may be superseded by a solicitation (like ROSES) so too the individual program elements like Ecological Forecasting may supersede the ROSES Summary of Solicitation. At an even higher level there is the Government wide rules for grants (2 CFR 200) but mostly that something you don't deal with.

# Table 2 of ROSES (sorted by due date)

	Name of Program Element	NOI/Step 1 Due Date	Proposal Due Date
D.2	Astrophysics Data Analysis	03/31/2020	05/19/2020
A.7	Biodiversity  Exobiology  NOIS  Optional	04/24/2020	05/22/2020
C.5	Exobiology NO19	04/22/2020	05/22/2020
D.14	Theoretical and Computational NOIs Nois Natrophysics Networks Reques	lot sted	05/28/2020
A.38	Health and Air Quality Applied Sciences Team	04/17/2020	05/29/2020
E.3	Exoplanets Research	03/27/2020 (Step-1)	05/29/2020 (Step-2)
[]	Step-1 Mandatory	[]	[]
[]	Step	[]	[]
D.3	Astrophysics Research and Analysis	10/23/2020 (mandatory NOIs)	12/17/2020
	NOI Mandatory		

#### Table of Work Effort

Table of work effort in the main proposal PDF is merely a reporting of the planned work commitment for all participants, funded by NASA or not. A very simple example from Section IV(b)iii of the ROSES summary of Solicitation will appear on the next slide. Note, this table is outside of and is distinct from budget and the page limited main part of proposal, which must describe what work each team member will be doing. That doesn't belong here.

Templates for the planetary science division may be found on the SARA web page at <a href="http://tinyurl.com/hbnff8u">http://tinyurl.com/hbnff8u</a> (refer to #2). And for the Earth Science Division here.

### ROSES SoS: (simple) Table of Work Effort

Person and/or Role	Time charged to this proposal	Time not charged to this proposal	Total Time per person/year
PI, Rick Sanchez	3 months/year	N/A	3 months/year
Co-I, Morticia Smith	4 months/year	N/A	4 months/year
Co-I, Revolio Clockberg Jr.*	N/A	1.5 months/year	1.5 months/year
Collaborator, Daniella Harmon	N/A	de minimis	de minimis
Grad Student, Justine Roiland°	N/A	12 months/year	12 months/year

<sup>\*</sup> A letter of support is provided from the foreign organization Herpson Polytecknic Universität for Prof. Revolio Clockberg Jr. participating at no cost to this proposal.

Appendix C (Planetary Science) Template
Appendix A (Earth Science) Template

<sup>°</sup> The Graduate student from the Citadel is funded by a FINESST award and thus participating at no cost to this proposal.

### **Budget Redaction from ROSES Proposals**

For ROSES, salary, fringe, and overhead are not included in the main proposal PDF seen by the peer reviewers. They are included in the NSPIRES budget and the separately uploaded "Total Budget". This is described in the Summary of Solicitation and <a href="https://science.nasa.gov/researchers/sara/faqs#8">https://science.nasa.gov/researchers/sara/faqs#8</a> and/or

http://science.nasa.gov/researchers/sara/how-to-guide/nspires-CSlabor/

#### **NSPIRES**

- I've already shown some NSPIRES pages (the tables of due dates and program element pages) NSPIRES <a href="https://nspires.nasaprs.com/">https://nspires.nasaprs.com/</a> is the web page through which you may find out about NASA solicitations and submit proposals.
- NSPIRES has some really good help pages at <a href="https://nspires.nasaprs.com/external/help.do">https://nspires.nasaprs.com/external/help.do</a> and you can sign up for notifications by directorate (more on this later).



#### **General Information**

Proposals and NOIs

Organizations

**User Guides** 

#### Lesson 1: General Information

Learn about NASA's overall mission and programs in relation to the solicitations and proposals process.

#### Lesson 2: Introduction to NSPIRES

Learn how NSPIRES can help you create and submit proposals to NASA through this introduction to the basic modules of this web application.

#### Lesson 3: Organizations

Learn about the various roles within an organization, such as EBPOC, OAO, and OPOC, and how they participate in the proposal process. This lesson also defines the term affiliation.

#### Lesson 4: Members

Learn about the roles of Principal Investigator (PI), team member and support staff and how they participate in the proposal process. This lesson also defines the term associations.

#### Lesson 5: Proposals

Learn about the characteristics of a proposal, proposal sources, parts of a proposal, tips for writing proposals, and requirements for submitting proposals to NASA.

### NSPIRES 'View Proposal' = Main Page

Title: This is a test

Solicitation Announcement: NNH19ZDA001N-EXO:Exobiology

TBD on Submit Proposal No.:

PI: Max Bernstein

Electronic Submissions Only Submittal Type:

Proposal Due: 06/12/2019, 11:59 PM EDT

Status: Pending Submitting Organization:

Applicant Identifier:

Proposa	Cover	<b>Page</b>
---------	-------	-------------

Element Updated Status \*

Proposal Summary

**Business Data** 

Budget

← Add team members Program Specific Data Proposal Team



#### **NSPIRES** Cont.

# Team members are added via the web interface so that they are databased...

	<b>Account Mgmt</b>	<b>Organization Mgmt</b>	Proposals/NOIs	Reviews		NSPIRES Time:
PI						
Name	Role	Date Assigno	Email ed			
George Tahu	PI	11/15/	/2013 george.tahu	@nasa.gov		
<b>Team Members</b>					Add Tea	ım Member
Name	Role	Date Assigno	Email led		Relationship Confirmed	Options
Mitchell Schulte	Co-I	11/15/	2013 Mitchell.Sch	ulte@nasa.gov	[unconfirmed]	<u>Delete</u>

Optional Team Member Role(s): Lead Representative, Co-I/Science PI, Other Professional, Industry Partner, Co-I/Co-PI (non-US organization only), Co-I/Institutional PI, Collaborator, Instrument Project Manager, Project Manager, Postdoctoral Associate, Graduate/Undergraduate Student, International Partner, Co-I, Instrument System Manager

Support Staff			Add Staff
Name	Email	Date Assigned	Options
Max Bernstein	max.bernstein@nasa.gov	11/15/2013	<u>Delete</u>

### **NSPIRES** Cont.

You may set their access (view, edit) by section...

Assigned Roles and Privileges					
Role: *	Collaborator	_			
(** denotes required role for this proposal)					

Privilege	None	View	Edit
Proposal Summary	$\bigcirc$	$\bigcirc$	0
Business Data	$\circ$	0	$\circ$
Budget	$\bigcirc$	0	$\bigcirc$
Program Specific Data	$\bigcirc$	0	$\bigcirc$
Team Members	$\circ$	0	$\bigcirc$
Proposal Attachments	$\bigcirc$	$\circ$	0

### NSPIRES "Cover Page" Budget

Budget			
Budget Period: Start Date End Date	1 Enter Dates	Enter Dates	3 Enter Dates
	Сору	Сору	Сору
A. Senior/Key Person	\$0.00	\$0.00	\$0.00
B. Other Personnel	\$0.00	<u>\$0.00</u>	<u>\$0.00</u>
Total Salary and Wages (A+B)	\$0.00	\$0.00	\$0.00
C. Equipment Description	\$0.00	<u>\$0.00</u>	\$0.00
D. Travel	\$0.00	<u>\$0.00</u>	<u>\$0.00</u>
E. Participant/Trainee Support Costs	\$0.00	\$0.00	\$0.00
F. Other Direct Costs	\$0.00	<u>\$0.00</u>	<u>\$0.00</u>
G. Direct Costs (A through F)	\$0.00	\$0.00	\$0.00
H. Indirect Costs	<u>\$0.00</u>	<u>\$0.00</u>	<u>\$0.00</u>
I. Total Direct and Indirect Costs (G + H)	\$0.00	\$0.00	\$0.00
J. Fee	<u>\$0.00</u>	\$0.00	<u>\$0.00</u>
K. Budget Total (I + J)	\$0.00	\$0.00	\$0.00

Salary, Fringe, and Overhead is automatically redacted here for ROSES only, more on this later.

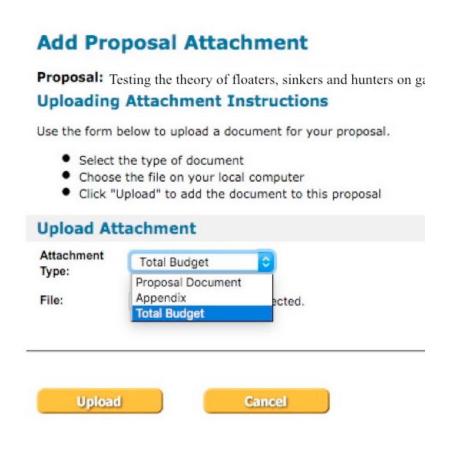
### Create Proposal Continued

For NOIs and Step-1 proposals generally there is no file to upload and no budget. The description is just text in a box. For Step-2 or full proposals there are 1-3 PDF files that may be uploaded. See

- How to Submit a Step-1 Proposal
- How to Submit a Step-2 Proposal

### Proposals are uploaded via NSPIRESs as PDFs

The three kinds of files that one may be asked to upload as PDF files are: There is always a proposal, of course but for ROSES there is usually a "Total Budget", and sometimes there is an additional appendix, like when you are requesting high-end computing time.



### Release to Org vs. Submission

- Proposals are generally due before midnight on the day listed, so by 11:59 pm.
- However, a PI merely releases the proposal to the organization (Org) and the AOR at the Org submits it.
- Your AOR may say I am not working past 5 pm so to be safe you must release the proposal to Org by 3 pm (or whatever they say).
- Check elements to make sure that you don't have any errors that would prevent submission
- Releasing to Org early and having them submit early is advised so that you may check the proposal after submission and correct any errors.

## There is a lot of help online

See the NSPIRES help pages and tutorials at <a href="https://nspires.nasaprs.com/external/help.do">https://nspires.nasaprs.com/external/help.do</a> and my additional walk throughs on the SARA web page (see slides below) at:

https://science.nasa.gov/researchers/sara/how-to-guide/maxs-nspires-helpful-hints

#### **Budgets:**

http://science.nasa.gov/researchers/sara/how-to-guide/nspires-CSlabor/

# There is a lot of help online Max's NSPIRES Helpful Hints

NSPIRES is the web interface that most scientists use to submit proposals to the Science Mission Directorate. There are tutorials on the NSPIRES pages, but I would like to mention just a few pointers here that have come up recently with tragic consequences.

- NSPIRES basics: how to register
- NSPIRES basics: adding team members
- NSPIRES basics: release and submit proposal
- NSPIRES warnings and errors: why can't I submit
- NSPIRES budgets: CS labor in NSPIRES cover pages

#### Team member participation

An important change has come to NSPIRES, the web page through which proposals are submitted. Starting in Aug 2009 all team members (e.g., Co-Investigators, Collaborators, etc.) MUST officially agree to participate on a proposal online through the NSPIRES web page. If a team member is invited to participate, but they don't confirm their participation online, then you will have to remove them from your proposal team before you submit your proposal. I have created a walk through of this online participation process with screen captures because NSPIRES is not always totally intuitive. You can download this guide as a PDF file along with other useful resources:

- Guide for PIs to adding and removing team members
- NSPIRES Tutorials

## The SARA web page

The SARA web page <a href="http://sara.nasa.gov">http://sara.nasa.gov</a> is different from the NSPIRES web page. Its where the ROSES FAQ about redaction is posted, where the templates for the planetary science division are posted.

It has POCs for program elements, an RSS feed for clarifications, corrections and amendments to ROSES, selection statistics, and other things.

## **Volunteer for Review Panels**

## https://science.nasa.gov/researchers/volunteer-review-panels Welcome to the volunteer reviewer page! For Researchers

To increase the pool of un-conflicted reviewers we are seeking subject matter experts to serve as on-line reviewers of proposals and/or in-person reviewers to engage in discussions at a face-to-face panel meeting. New researchers including post doctoral fellows and sometimes upper level graduate students are welcome. Just follow the links below to the volunteer review forms and indicate the fields in which you consider yourself to be a subject matter expert and click the boxes. If your expertise matches our program needs NASA will contact you to discuss potential review assignments. Qualified SMEs may, and are encouraged, to volunteer to one or more program reviewer call. If you volunteered in a prior year and were not invited or were invited but not available, please complete a new form(s).

Use the following the links to current program-specific volunteer review forms. NASA periodically updates this page to remove or add volunteer links.

Please direct questions or corrections on this page to SARA@nasa.gov.

We are currently seeking reviewers for:

- Akatsuki Participating Scientist Program (ROSES C.25)
- Exoplanet Research Program (ROSES E.3)
- Future Investigators in NASA Earth Science and Technology (FINESST Earth)
- Future Investigators in Space Science and Technology (FINESST Space)
- Habitable Worlds (ROSES E.4)
- Heliophysics Living With a Star Science (ROSES B.6)

- Contact SARA
- > Advisory Committees
- ROSES FAQ
- > Dual-Anonymous Peer Review
- > Grant Solicitations
- Announcement of Opportunity
- Grant Stats
- > Program Officers List
- > How To Guide
- Letters from SARA
- Library and Useful Links
- > Fellowship Opportunities
- You are here  $\rightarrow$ Volunteer for Review Panels
  - Suggest Reviewers for **ROSES Science Proposals**
  - Data & Pubs Rules
  - New PI Resources

add	something that we missed. Please select all relevant area(s) of your expertise:
	Atmospheric circulation
•	Atmospheric chemistry Volunteer to serve on a review
	Atmospheric dynamics
	Atmospheric measurements panel, continued
	Atmospheric modeling
	Cloud dynamics
•	Exoplanets
	Ground-based observations
	Ground-penetrating radar
	Heterodyne spectroscopy
•	IR spectroscopy
	IR imaging
	Laboratory methods (Please describe in the comment box)
	Mapping
•	Mass spectroscopy
	Modeling (Please describe in the comment box)
	Plasma measurements
	RADAR/THz radar
	Radiative Transfer

#### Points of contact for ROSES

at <a href="https://science.nasa.gov/researchers/sara/program-officers-list/">https://science.nasa.gov/researchers/sara/program-officers-list/</a>

#### **Heliophysics Programs**

- Heliophysics R&A Lead: Mona Kessel, email: mona.kessel, phone: 202-358-0064
- Heliophysics Supporting Research: <u>Arik Posner</u>, email: arik.posner, phone: 202-358-0727
- Heliophysics Technology and Instrument Development for Science: Roshanak Hakimzadeh, email: <a href="hakimzadeh">hakimzadeh</a>, phone: 202-358-0784
- Heliophysics Flight Opportunities for Research and Technology: Dan Moses, email: <u>dan.moses</u>, phone: 202-358-0558
- Heliophysics Guest Investigators: Galen Fowler, email: galen.fowler, phone: 202-358-0039
- Early Career Investigator Program in Heliophysics: <u>Liz</u>
   <u>Macdonald</u>, email: <u>elizabeth.a.macdonald</u>, phone: 202-3580991
- GOLD/ICON Guest Investigators: Galen Fowler, email: galen.fowler, phone: 202-358-0039
- Magnetospheric Multiscale Guest Investigators: Galen Fowler, email: galen.fowler, phone: 202-358-0039
- Open Data-Development Element: William Paterson, email: william.r.paterson, phone: 202-358-0991
- Space Weather Operations-to-Research: James Spann, email: jim.spann, phone: 202-358-0574

#### For Researchers

Subscribe / Contact SARA Advisory Committees

**FAQs** 

**Grant Solicitations** 

Announcement of Opportunity Grant Stats

You are here → Program Officers List

How To Guide Letters from SARA

Library and Useful Links

Fellowship Opportunities
Volunteer for Review Panels

Suggest Reviewers for

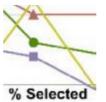
ROSES Science Proposals
Data & Pubs Rules

## Statistics about prior ROSES

at <a href="https://science.nasa.gov/researchers/sara/grant-stats">https://science.nasa.gov/researchers/sara/grant-stats</a>

## **Grant Stats**

#### **ROSES Selections Data**



- Spring 2019 Spreadsheet of Selection Stats by ROSES Program (Excel)

  Spring 2019 Spreadsheet of Selection Stats by ROSES Program (PDF)

  ROSES selections 2008-2015 (PDF)

#### selected 25

Plots of grades vs. who gets selected

You can find abstracts of the awards from each ROSES program posted on NSPIRES by following this procedure: go to http://nspires.nasaprs.com/external/ choose solicitations, then choose "Past Solicitations and Selection Dates" and then choose the vear you want from the drop-down menu and click the "find" button. This will give you a

#### For Researchers

- Subscribe / Contact SARA
- > Advisory Committees
- Grant Solicitations
- Announcement of Opportunity
- You are here -**Grant Stats** 
  - Program Officers List
  - How To Guide
  - Letters from SARA
  - > Library and Useful Links
  - Fellowship Opportunities
  - Volunteer for Review Panels

#### Example excerpt from grant stats spreadsheet

Remember, it takes a while for review and selection (sometimes waiting on budget) so this tends to be at least 6 months after proposal due date. This year longer cause of shutdown.

		•		_	
Apollo Next Generation Sample Analysis Program	23	9	39%	286	
Astrodynamics in Support of Icy Worlds Missions Step-1	38	37	N/A	N/A	
Astrodynamics in Support of Icy Worlds Missions Step-2	33	4	12%		
Cassini Data Analysis Step-1	79	79	N/A	N/A	
Cassini Data Analysis Step-2	61	18	30%	121	Plus one partial selection
Cassini Data Analysis:PDS Cassini Data Release 54 Step-1	10	9	N/A	N/A	
Cassini Data Analysis: PDS Cassini Data Release 54 Step-2	7	2	29%	125	
Development and Advancement of Lunar Instrumentation Program Step-1	72	72	N/A	N/A	
Development and Advancement of Lunar Instrumentation Program Step-2	48	10	21%	1070	
Discovery Data Analysis Step-1	33	32	N/A	N/A	
Discovery Data Analysis Step-2	22	5	23%	129	plus one partial selection
Emerging Worlds Step-1	161	135	N/A	N/A	
Emerging Worlds Step-2	110	26	24%	187	
Exobiology	156	24	15%	215	
Instrument Concepts for Europa Exploration 2 Step-1	49	48	N/A	N/A	
Instrument Concepts for Europa Exploration 2 Step-2	44	14	32%	1020	
Korea Pathfinder Lunar Orbiter Participating Scientist Program Step-1	40	40	N/A	N/A	
Korea Pathfinder Lunar Orbiter Participating Scientist Program Step-2	26				Launch date delayed review postponed
Laboratory Analysis of Returned Samples Step-1	33	29	N/A	N/A	
Laboratory Analysis of Returned Samples Step-2	26	9	35%	299	
Lunar Data Analysis Step-1	66	63	N/A	N/A	
Lunar Data Analysis Step-2	37	9	24%		a couple selectables remain early 2020
Lunar Surface Instrument and Technology Payloads Step-1	69	61	N/A	N/A	
Lunar Surface Instrument and Technology Payloads Step-2	51	12	24%		
Mars 2020 Returned Sample Science Participating Scientist Program	54	10	19%		
Mars Data Analysis Step-1	160	129	N/A	N/A	
Mars Data Analysis Step-2	103	23	22%	136	Plus one partial selection
Maturation of Instruments for Solar System Exploration Step-1	75	66	N/A	N/A	
Maturation of Instruments for Solar System Exploration Step-2	55	6	11%	1000	
New Frontiers Data Analysis Step-1	44	34	N/A	N/A	
New Frontiers Data Analysis Step-2	25	9	36%	129	
Planetary Data Archiving, Restoration, and Tools Step-1	122	113	N/A	N/A	
Planetary Data Archiving, Restoration, and Tools Step-2	91	16	18%	157	
Planetary Instrument Concepts for the Advancement of Solar System Observations Step-1	124	116	N/A	N/A	
Planetary Instrument Concepts for the Advancement of Solar System Observations Step-2	91	11	12%	318	
Planetary Major Equipment and Facilities Step-1	22	14	N/A	N/A	

#### Changes and Additions to ROSES after release

- ► NSPIRES team member commitment guide
- Dual-Anonymous Peer Review Web Page
- Preparing conventional ROSES Proposals for DAPR
- Astrophysics GOGI Town Hall Slides
- ► Hertz 2019 Memo regarding Astrophysics Dual-Anonymous Peer Review
- Peer Review Conflicts of Interest
- SMD Peer Review Policy
- SMD Reconsideration Policy
- ▶ SPD 15 Center Community Service Policy
- SPD-16 Civil Servant Peer Review Conflict of Interest
- SPD 26A Communications for Missions
- ▶ SPD-29 External Websites, Original with Erratum
- ▶ SPD 31 Student Collaboration
- ▶ SPD-33 Citizen Science
- ► How to Submit a Step-1 Proposal
- How to Submit a Step-2 Proposal
- How to Subscribe to the ROSES-2020 Due Date Calendars ← Google due date calendar
  - Example ROSES Panel evaluation
  - Planetary Science Division FAQ for Data Management Plans
  - POSES 2020 Update Slides
- Conference Sponsorship Memo (Not Current/Listed for Historical Purposes)

> FAQs

You are here →

- Grant Solicitations
- Announcement of Opportunity
- > Grant Stats
- > Program Officers List
- > How To Guide
- > Letters from SARA
- > Fellowship Opportunities

Library and Useful Links

- Volunteer for Review Panels
- Suggest Reviewers for ROSES Science Proposals
- > Data & Pubs Rules

# Changes and Additions to ROSES after release: NSPIRES mailing lists

Any other new program elements added, TBD programs that are finalized, or major changes in scope (or due date) will be announced by an Amendment to ROSES. You will get an email if you subscribe to the SMD mailing list in NSPIRES under "Account Management".

Farth Science Mission Directorate

Email Subscriptions

Astrophysics

General Subscription List

General Subscription List

General Subscription List

General Subscription List

# Changes and Additions to ROSES after release: Links to Amendments etc. on the home page

#### **NASA Research Announcement**

#### Research Opportunities in Space and Earth Sciences 2019 (ROSES-2019)

#### Solicitation: NNH19ZDA001N

#### **Dates**

Release

Close

Mar 14, 2019

Mar 27, 2020

#### **Announcement Documents**

- DUE DATES: Table 2 lists and links to all program elements in due date order as amended (.HTML)
- DUE DATES: Table 3 lists and links to all program elements in appendix order as amended (.HTML)
- > ROSES-2019 Summary of Solicitation (.PDF) -- common requirements for all programs. Updated March 19, 2019
- > Full ROSES-2019 document as clarified and amended April 4, 2019 (.PDF)
- $\rightarrow$
- Amendments (As of: April 4, 2019)

#### **Other Documents**



- > ROSES-2019 Corrections and Clarifications as of April 4, 2019.
- Grants and Cooperative Agreement Manual (GCAM) (.DOC)
- Link to the page hosting the NRA or Cooperative Agreement Notice Proposers' Guidebook
- Link to Proposed High-End Computing Request Template. See ROSES-2019 Summary of Solicitation Section I(d) for more details on the use of this form.

#### **ROSES-2020 Amendments, Clarifications, and Corrections**

Welcome to SARA's Research Opportunities in Space and Earth Science (ROSES)-2020 blog. If you want to have a list of all of the changes to ROSES-2020 then bookmark this page.

## Amendment 3: C.2 Emerging Worlds and C.3 Solar System Workings Change in Scope Regarding Lunar Materials

SOLAR SYSTEM Feb 27, 2020

Research in the area of "Emerging Worlds" aims to answer the fundamental science question of how the Solar System formed and evolved. It helps to advance the strategic science goal to "explore and observe the objects in the Solar System to understand how they formed and evolve" through basic... Read More

http://science.nasa.gov/researchers/sara/grant-solicitations/roses-2020/

# Amendment 2: Science Activation Program Integration Final Text and Due Dates

UNIVERSE, EARTH, SUN, SOLAR SYSTEM Feb 25, 2020

This Amendment releases final text and due dates for program element E.6 Science Activation Program Integration.

## **Amendment 1: Heliophysics: Early Career**

## Generic Advice Re: Proposals

- Seeing what won in the past
- Serving as a reviewer
- Max's personal advice

## Respond to the program element

I've noted how many different elements there are in ROSES. Most of them are in Earth Science, where there are many narrow calls (e.g., Earth Science Research from Operational Geostationary Satellite Systems) vs. Astrophysics, where there are few and thus more broad. For example there is a single theory call for all of Astrophysics. So, you must believe Earth Science if the call says must do this or you may not do that. Don't waste your time writing a proposal that will never be accepted. Read the call.

## Respond to the program element

In Earth Science Research from Operational Geostationary Satellite Systems when, they say:

"This program element solicits two types of investigations:

Type 1: Data product creation from operational geostationary satellite systems for research or operational opportunities and for the type 2 investigations below.

Type 2: Data analysis to better characterize and understand environmental (land, ocean, and atmosphere) phenomena and processes and the utilization of the data in research and operations."

Pay attention to the word must e.g.,

"Proposals **must** identify the unmet need of the research or operations communities and address the goals of NASA or NOAA specified in Section 2. In addition, proposals **must** follow the data and software policies..."

## See what won in the past

If there is a particular program of interest to you, you may simply visit the NSPIRES page of that program element from past years and look under " Selections"

#### **Earth Surface and Interior**

Solicitation: NNH18ZDA001N-ESI

Da	ite	25
Re	ea	ise

Feb 14, 2018

ESI18 NOIs Due Apr 13,

2018

**ESI18 Proposals Due** 

May 15, 2018

Selection

Nov 01, 2018

#### **Announcement Documents**

- DUE DATES: Table 2 lists all program elements in due date order (.HTML)
- DUE DATES: Table 3 lists all program elements in appendix order (.HTML)
- > ROSES 2018 Summary of Solicitation (links corrected October 5, 2018) (.PDF)
- > Complete ROSES 2018 NRA as amended and clarified as of February 28, 2019 (.PDF)
- A.1 Earth Science Research Overview (.PDF)
- > A.24 Earth Surface and Interior (.PDF)

#### **Selections**

https://nspires.nasaprs.com/external/viewrepositorydocument/cmdocumentid=660534/solicitationId=%7BB4D94D24-60AE-981C-24F2-2A6EC690C99E%7D/viewSolicitationDocument=1/ESI18%20Abstracts.pdf

## See what won in the past

But if you don't know of a particular program, you may search the NSSC grant status database to get a list of grants based on key word from the title, university, PI etc.

https://www.nssc.nasa.gov/grantstatus

## Max's personal idiosyncratic advice

- Follow your passion, i.e., when first thinking about what to do, its best to decide what you want to do, rather than submitting a proposal to a program just because its available. That said, don't force a square proposal into a round call for proposals.
- If you are interested in getting into a new area, especially if you have reason to think that its hard to break in (esp. true for flight projects) consider approaching someone in your area who has succeeded in the past and offer to help, tell them what you can add.
- If you write your own proposal start with the problem (or debate), why it matters, and then your solution (or test of which theory is right).

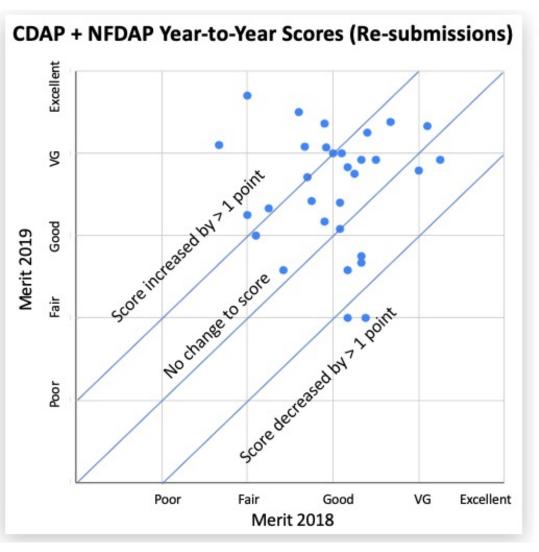
## Max's personal idiosyncratic advice

- Don't annoy the reviewer.
- Don't just write a proposal that can be understood, write a proposal that cannot be misunderstood.
- Use figures and tables.
- Assemble a community (of peers, mentors, etc.)
- Have your proposal reviewed by others, who are not experts in your subdiscipline, and then make changes based on what they say.
- I didn't say that you had to make the changes they suggested, I said that you had to make changes.
- Ditto the reviews you get back from us. I could do a whole bunch of slides just on this.
- Some things are worth saying more than once

#### So you just got back your review and...

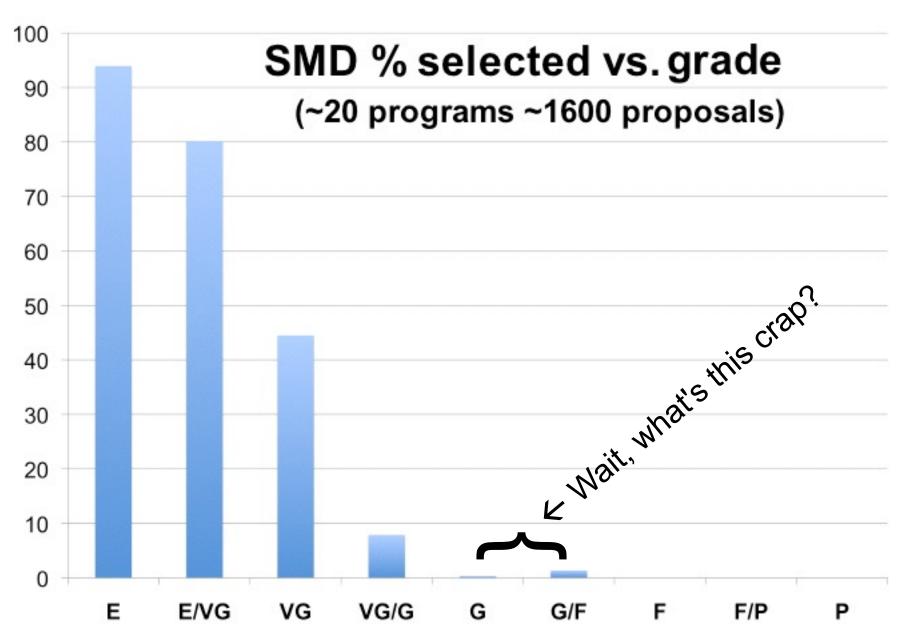
- You now have proof that the reviewers are morons
- Yes, but its your responsibility to write a proposal that even a moron can see is excellent.
- Don't tell the world that your reviewers are morons, because they are your friends on Facebook.
- Don't tell the program officer that your reviewers are morons, he or she used *your* suggestions.
- Vox populi, vox Dei.
- No, there is not enough room for the detail needed.
- Some things are worth saying more than once
- Or maybe need to be emphasized with bold or something?
- The inherent uncertainty in the measurement of Merit is ~0.5 point (10-20%).

#### Variations in Score from Year to Year



- Microstudy to investigate perception of inconsistent year-to-year panel scoring.
- Compared re-submissions to CDAP and NFDAP in 2018-2019: Same PI, same title, same institution.
- Results:
  - Of the 29 re-submitted proposals, the average change in score was +0.5 points.
    - · Re-submissions go preferentially up in score.
  - Of the 29 re-submitted proposals, 10 went up by > 1 point. 2 went down by > 1 point.
    - No evidence for 'panel fatigue.' A negative review one year does not bias panel against proposal in future years.
    - Scores of re-submitted proposals should and do increase, presumably because Pls revise and improve their proposals.
  - Of 89 proposals submitted in total, the mean from 2018 to 2019 changed by +0.1 points.
    - i.e., overall panel score calibration from yearto-year appears consistent. Score histogram is also consistent (not shown).

## So you just got back your review



## What happed there?

Those are proposals that were partially selected. Did you know that the panel can recommend that? They can. If you have tasks that are separable then they can vote twice, recommending funding for just part of the proposal. But the second grade is never revealed.

The unavoidable conclusion that the proposer would have done better to focus on the stronger task (had they known) leads to and interesting point about scope vs. detail. Since there is (usually) just a single page length, that means that focused projects get to describe things in greater detail.

## **Affiliations and Organizations**

As you know only an organization can submit a proposal. Right now maybe you are a second year NPP so if you won a proposal then next year you could just continue as an NPP.

Fair enough, submit your proposal from your center (some centers will require that your center advisor be the PI and so you will be the Co-I/Science PI). If selected, the funds for your NPP third year can be put onto the contract that funds the NPP. NASA HQ sends the \$ to USRA and then they give you some stipend etc.

Also, some funds for facilities or equipment can be sent to your center.

Budget Period 1 - F. Other Direct Costs					
Item	This is a series applying of Cootie	Funds Requested (\$)			
1. Materials and Supplies	This is a screen capture of Section budget year 1 of a proposal. Conti				
2. Publication Costs	can go in line 5, but I used configur				
3. Consultant Services	so I could specify what its for. The line 9 to give the local ARC cos				
4. ADP/Computer Services	proposal budget would say that the	he funds			
5. Subawards/Consortium/Contract	need to be split out, with NPP year being put directly onto the contrac	ar 3 costs t from HQ			
6. Equipment or Facility Rental/User Feesand the Ames taxes sent directly to ARC.					
7. Alterations and Renovations					
8. Cost of NPP Year 3 to be put onto Con	itract from HQ	136534			
9. Local fees/taxes for NASA Ames Rese	earch Center	1500			
10.					

\$

138034

**Total Other Direct Costs:** 

## But what about the out years?

- That third year of your NPP was project year 1 in the NSPIRES cover page budget you submitted.
- Since one cannot stay on NPP past year 3, you must find another organization that will accept the funds for project years 2-3 of the budget.
- That can be your center, but they cannot pay you directly if you are not a civil servant. The funds to pay your salary as a soft-\$ scientist will be sent to some non-governmental organization via cooperative agreement.
- Or you can just go straight to that non-governmental organization and propose from their, but if you are going to be at the center there will be bills\*.

Budget Period 2 - F. Other Direct Costs					
Item		Funds Requested (\$)			
1. Materials and Supplies	In year 2 maybe will be paid				
2. Publication Costs	via the SETI institute. Those funds will be sent from HQ to				
3. Consultant Services	ARC and then sent to SETI				
4. ADP/Computer Services	through a cooperative				
5. Subawards/Consortium/Contractual Costs	agreement. This is captured in line 5 (subawards).	167441			
6. Equipment or Facility Rental/User Fees	Then I used line 8 to give the				
7. Alterations and Renovations	local ARC costs. The				
8. local fees/taxes for NASA Ames Research Center	proposal budget would say that all of the funds are to be	1500			
9.	sent directly to ARC.				
10.					

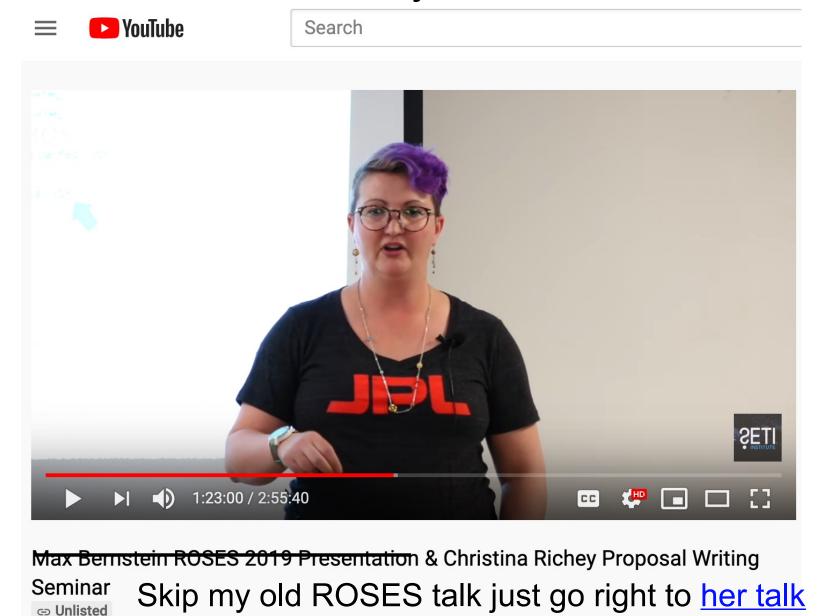
**Total Other Direct Costs:** 

168941

NID A Call dada NINI		FY 21	FY 22	FY 23	FY 21-23
NRA Solicitation: NNH Step 1 Proposal Number: (if available	<u> </u>	Oct 2020 -	Oct 2021 -	Oct 2022 -	Oct 2020 -
Step 1 Proposal Number: (if available	,	Sep 2021	Sep 2022	Sep 2023	Sep 2023
DIRECT COSTS:					
On-site Senior /Key Persons 1:					
Co-Investigator,	(NASA ARC, Code SS)				
Workyears: 0.1; 0.1; 0.1; ; ; (Mont	hs: 1.2; 1.2; 1.2; ; )	\$13,193	\$13,664	\$14,101	\$40,958
Benefits @ ~33%		\$4,261	\$4,441	\$4,625	\$13,327
On-s	ite Subtotal Civil Servant Labor:	\$17,454	\$18,105	\$18,726	\$54,285
Principal Investigator,	(1				
Workyears: 0.5; 0.5; 0.5; ; ; (Mont	hs: 6; 6; 6; ; ; )	\$59,353	\$61,134	\$62,968	\$183,455
Benefits @ ~13%		\$7,983	\$8,222	\$8,469	\$24,674
Co-Investigator,					
Workyears: 0.1; 0.1; 0.1; ; (Months: 1.2; 1.2; 1.2; ;)			\$11,767	\$11,767	\$35,301
Benefits @ ~13%		\$11,767 \$1,577	\$1,577	\$1,577	\$4,731
Subtotal	On-site Non-Civil Servant Labor :	\$80,680	\$82,700	\$84,781	\$248,161
	Subtotal On-site Labor :	\$98,134	\$100,805	\$103,507	\$302,446
Travel Costs:		4- 000			
Domestic (		\$3,000			
Subawards:	Subtotal Travel :	\$3,000	\$3,000	\$1,500	\$7,500
	LININ/	#10F F0 <del>F</del>	¢05 500	#20.120	¢221.426
CO-I:et al.	UNIV. ( Subtotal Subawards :	\$105,587	-	-	
Other Direct Costs:	Subtotal Subawards:	\$105,587	\$87,700	\$38,138	\$231,426
Materials and Supplies	NASA ARC, Code SS	\$4,000	\$2,500	\$1,979	\$8,479
Publication Costs	,	42/000	\$1,639		
Direct technical support costs <sup>2</sup>	NASA ARC, Code SS	\$25,173	_		
	<b>Subtotal Other Direct Costs:</b>	\$29,173	\$29,952	\$30,064	\$89,189
	TOTAL DIRECT COSTS	\$235,894	\$221,457	\$173,209	\$630,561
INDIRECT COSTS:					
overhead		\$8,368	\$8,734		\$25,899
	TOTAL INDIRECT COSTS	\$8,368	\$8,734	\$8,797	\$25,899
	sts - Labor plus all other Costs:	\$244,262	\$230,191	\$182,006	\$656,459
Any On-site Non-Civil Servant labor					
and the respective institution. This wo	ork will be conducted at NASA Ame	es tacilities i	in collabora	tion with N	ASA Ames

Example Anonymized Budget

## Watch Christina Richey SETI talk on Youtube



233 views • Apr 15, 2019



# Links to slides and a recording of this talk and other things at <a href="http://sara.nasa.gov">http://sara.nasa.gov</a>

- NASA 2018 Strategic Plan
- NASA 2014 Science Plan
- NASA Plan for Increasing Access to Results of Federally Funded Research (July 2015)
- Conference Sponsorship Memo
- Dawn Science Team Rules of the Road
- SMD Policy on Late Proposal
- Mars 2020 SDT Charter
- NSPIRES team member commitment guide
- Peer Review Conflicts of Interest
- SMD Peer Review Policy
- SMD Reconsideration Policy
- SPD 15 Center Community Service Policy
- SPD-16 Civil Servant Peer Review Conflict of Interest
- SPD 26A Communications for Missions
- ▶ SPD 31 Student Collaboration
- SPD-33 Citizen Science
- How to Submit a Step-1 Proposal
- How to Submit a Step-2 Proposal
- How to Subscribe to the ROSES-2019 Due Date Calendars

- FAQs
- > Grant Solicitations
- Announcement of Opportunity
- Grant Stats
- Program Officers List
- > How To Guide
- Letters from SARA
- You are here →> Library and Useful Links
  - > Fellowship Opportunities
  - Volunteer for Review Panels
  - Suggest Reviewers for ROSES Science Proposals
  - Data & Pubs Rules

Thank you

Questions?

My email is <a href="mailto:sara@nasa.gov">sara@nasa.gov</a>

#### Back up budget redaction slides follow

# **Budget Redaction**

- The parts of ROSES proposals seen by reviewers must not show salary, fringe or overhead.
- The separately uploaded "Total" budget includes those details, but that is not seen by peer reviewers.
- See Section IV(b)iii of the ROSES Summary of Solicitation and the FAQ at
  - https://science.nasa.gov/researchers/sara/how-to-guide/nspires-CSlabor
- Screen Captures follow.

## Cover Page Budget

There are three lines for Co-Is at other organizations. First, put funds for Co-I government organizations in lines 8 & 9. Put the funds that pass through your organization in line 5.

	Budget Period 1 - F. Other Direct Costs		
	Item		Funds Requested (\$)
	1. Materials and Supplies		1500
	2. Publication Costs		2000
	3. Consultant Services		
	4. ADP/Computer Services		300
Redacted{	5. Subawards/Consortium/Contractual Costs		600000
	6. Equipment or Facility Rental/User Fees		
	7. Alterations and Renovations		
S = = 1 = = 4 = = 1	8. Portion of award for NRL		150000
Redacted <b>{</b>	9. Portion of award for GSFC		80000
	10. Dont use this line, its not redacted		
	Total	Other Direct Costs:	<b>\$</b> 833800
		Total Period 1:	<b>\$</b> 833800
		Total Budget:	<b>\$</b> 833800
		rotar budget.	<b>3</b> 033000

69

## Cover Page Budget

I used Section F line 5, the generic subaward line, for my \$60K subcontract to Miskatonic University, not that you can tell, because I could not modify the description of line 5. That this is for M-U will only become apparent later when you read the actual proposal.

Next, I used customizable line 8 for the \$150K that will be sent directly to my Co-I at Naval Research Lab and I entered "NRL portion of this award" in the description.

In line 9 I put the GSFC portion of the award and labeled it appropriately.

When the proposal is evaluated by the peer review panel they will not see any of the \$ numbers in the Personnel Sections or in Section F lines 5, 8 & 9, all of that will be automatically redacted.

From <a href="http://science.nasa.gov/researchers/sara/how-to-guide/nspires-CSlabor/">http://science.nasa.gov/researchers/sara/how-to-guide/nspires-CSlabor/</a>

## **Budget Details/Justification**

Include costs of things (including those in a sub award) in the budget detail/justification in the main proposal PDF e.g., explain why does your Co-I need a \$3.5K MDO4000C oscilloscope, vs. a \$450 TBS1000B? Also, make reference to the subaward e.g., "0.5 FTE are allocated for Co-I Dr. H. West (Miskatonic, Arkham, Mass) as can be seen the summary table of work effort and full costs are in Section F line 5 of the cover page budget and in the separately uploaded Total Budget pdf file. Costs for labor, fringe and overhead are omitted consistent with ROSES instructions."

## **Budget Details/Justification**

Ditto consultants, no salary, fringe and overhead costs in the main proposal PDF. In the budget justification in the main proposal PDF you explain only the part that is not labor e.g., "The total cost of the consultants Goldshtik and Whorfin of the Banzai Institute is provided in the NSPIRES cover page budget in Section F line 3. The consultancy includes the cost of the rental of an oscillation overthruster from Professor Tohichi Hikita of Nagoya university at \$157/hour. This cost is quite reasonable given that similar facilities are twice as expensive.

#### **Total Budget Upload**

 The Total Budget PDF is uploaded in exactly the same way that the proposal PDF is uploaded, but by choosing document type "Total Budget", see figure below. This Total Budget file will not be seen by peer reviewers. In general, these budget files are for Step-2 proposals only.

